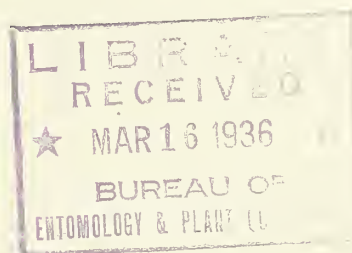


## **Historic, archived document**

Do not assume content reflects current scientific knowledge, policies, or practices.



THE INSECT PEST SURVEY  
BULLETIN



---

Volume 16

March 1, 1936

Number 1

---

BUREAU OF  
ENTOMOLOGY AND PLANT QUARANTINE  
UNITED STATES  
DEPARTMENT OF AGRICULTURE  
AND  
THE STATE ENTOMOLOGICAL  
AGENCIES COOPERATING



## INSECT PEST SURVEY BULLETIN

Vol. 16

March 1, 1936

No. 1

## REPORTERS FOR THE INSECT PEST SURVEY

United States	The Entomologists of the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture
Alabama	Dr. J. M. Robinson, Alabama Polytechnic Institute, Auburn
Arizona	Mr. C. D. Lebert, P. O. Box 2006, Phoenix
Arkansas	Dr. W. J. Baerg, University of Arkansas, Fayetteville Mr. Dwight Isely, University of Arkansas, Fayetteville
California	Dr. W. B. Heims, University of California, Berkeley Prof. E. O. Essig, University of California, Berkeley Mr. S. Lockwood, Bureau of Plant Quarantine and Control, Department of Agriculture, Sacramento Mr. H. S. Smith, Citrus Experiment Station, Riverside Mr. H. J. Ryan, County Agricultural Building, Los Angeles Mr. D. B. Mackie, Department of Agriculture, Sacramento Mr. M. L. Jones, Department of Agriculture, Sacramento Mr. A. E. Michelbacher, University of California, Berkeley Dr. A. W. Morrill, 815 Hill Street, Los Angeles Mr. L. M. Smith, University of California, Deciduous Fruit Field Station, Route 1, Box 232, San Jose Mr. F. H. Wymore, College of Agriculture, Davis
Colorado	Dr. C. P. Gillette, State Agricultural College, Fort Collins Dr. G. M. List, State Agricultural College, Fort Collins
Connecticut	Dr. W. E. Britton, Agricultural Experiment Station, New Haven Dr. E. P. Felt, Bartlett Research Laboratory, Stamford Dr. P. Garman, Agricultural Experiment Station, New Haven Mr. N. Turner, Agricultural Experiment Station, New Haven Mr. M. P. Zappe, Agricultural Experiment Station, New Haven
Delaware	Dr. L. A. Stearns, Agricultural Experiment Station, Newark

Florida	Dr. Wilmon Newell, Agricultural Experiment Station, Gainesville Mr. J. R. Watson, Agricultural Experiment Station, Gainesville Dr. E. W. Berger, State Plant Board, Gainesville Dr. H. T. Fernald, 707 East Concord Avenue, Orlando
Georgia	Mr. M. S. Yeomans, State Board of Entomology, Atlanta Mr. C. H. Alden, State Board of Entomology, Cornelia Mr. J. B. Gill, Box 572, Albany Mr. Theo. L. Bissell, State Experiment Station, Experiment
Idaho	Dr. Claude Wakeland, University of Idaho, Moscow
Illinois	Mr. W. P. Flint, State Natural History Survey, Urbana Dr. T. H. Frison, State Natural History Survey, Urbana Dr. C. L. Metcalf, State Natural History Survey, Urbana
Indiana	Prof. J. J. Davis, Purdue University, Lafayette
Iowa	Dr. Carl J. Drake, Iowa State College, Ames Mr. H. E. Jaques, Iowa Wesleyan College, Mt. Pleasant
Kansas	Prof. G. A. Dean, State Agricultural College, Manhattan Dr. H. B. Hungerford, University of Kansas, Lawrence Prof. H. R. Bryson, State Agricultural College, Manhattan
Kentucky	Prof. W. A. Price, University of Kentucky, Lexington
Maine	Dr. H. B. Peirson, State of Maine Forest Service, Augusta
Maryland	Dr. E. N. Cory, University of Maryland, College Park
Massachusetts	Mr. A. I. Bourne, Agricultural Experiment Station, Amherst
Michigan	Prof. R. H. Pettit, State College of Agriculture, East Lansing Mr. Ray Hutson, State College of Agriculture, East Lansing
Minnesota	Prof. A. G. Ruggles, University of Minnesota, University Farm, St. Paul
Mississippi	Mr. Clay Lyle, State Plant Board, State College
Missouri	Dr. L. Haseman, University of Missouri, Columbia
Montana	Dr. A. L. Strand, State College, Bozeman
Nebraska	Prof. M. H. Swenk, University of Nebraska, Lincoln Mr. D. B. Whelan, University of Nebraska, Lincoln Mr. L. M. Gates, Department of Agriculture, Lincoln
Nevada	Mr. G. G. Schweis, P. O. Box 1027, Reno

New Hampshire	Dr. W. C. O'Kane, Entomologist, College of Agriculture, University of New Hampshire, Durham Mr. L. C. Glover, Agricultural Experiment Station, Durham
New Jersey	Dr. T. J. Headlee, University of New Jersey, New Brunswick Mr. H. B. Weiss, Chief, Bureau of Statistics and Inspection, Department of Agriculture, Trenton
New Mexico	Dr. J. R. Eyer, College of Agriculture, State College
New York	Prof. C. E. Crosby, Cornell University, Ithaca Mr. P. J. Parrott, Agricultural Experiment Station, Geneva Dr. R. D. Glasgow, New York State Museum, Albany Mr. P. J. Chayman, Box 51, Vassar College, Poughkeepsie Mr. R. E. Horsey, Highland Park, Rochester
North Carolina	Dr. Z. P. Metcalf, State College, State College Station, Raleigh Dr. R. W. Leiby, Department of Agriculture, Raleigh
North Dakota	Prof. J. A. Munro, North Dakota Agricultural College, State College Station, Fargo
Ohio	Prof. T. H. Parks, Ohio State University, Columbus Mr. J. S. Houser, Agricultural Experiment Station, Wooster Dr. H. Osborn, Ohio State University, Columbus Mr. E. W. Meadenhall, Ohio State Department of Agriculture, 97 Brighton Road, Columbus Mr. J. N. Knoll, Ohio State University, Columbus
Oklahoma	Dr. F. A. Fenton, Oklahoma Agricultural and Mechanical College, Stillwater Mr. C. F. Stiles, Extension Entomologist, Oklahoma Agricultural and Mechanical College, Stillwater
Oregon	Dr. D. C. Mote, State Agricultural College, Corvallis
Pennsylvania	Dr. R. M. Baker, State Department of Agriculture, Harrisburg Prof. H. E. Hodgekiss, Pennsylvania State College, State College Mr. J. R. Stear, c/o Koppers Experiment Farm, Ligonier Mr. C. A. Thomas, Pennsylvania State College, Kennett Square Mr. H. N. Worthley, Pennsylvania State College, State College
Rhode Island	Dr. A. E. Stene, State Department of Agriculture, Providence
South Carolina	Prof. Franklin Sherman, Clemson College
South Dakota	Prof. H. C. Severin, State College of Agriculture and Mechanic Arts, Brookings



Tennessee	Prof. G. M. Bentley, University of Tennessee, Knoxville
Texas	Dr. F. L. Thomas, Agricultural Experiment Station, College Station
Utah	Dr. G. F. Knowlton, Agricultural Experiment Station, Logan Prof. C. J. Sorenson, Agricultural Experiment Station, Logan
Vermont	Dr. H. L. Bailey, State Department of Agriculture, Montpelier
Virginia	Dr. W. J. Schoene, Virginia Agricultural Experiment Station, Blacksburg Dr. H. G. Walker, Virginia Truck Experiment Station, Norfolk Mr. C. R. Willey, Division of Plant Industry, 1112 State Office Building, Richmond
Washington	Mr. M. H. Hatch, University of Washington, Seattle Prof. R. L. Webster, State College of Washington, Pullman Mr. A. J. Hanson, Department of Entomology, Western Washington Experiment Station, Puyallup
West Virginia	Dr. L. M. Peairs, West Virginia University, Morgantown Prof. W. E. Rumsey, Agricultural Experiment Station, Morgantown
Wisconsin	Mr. E. L. Chambers, State Department of Agriculture, Madison Dr. C. L. Fluke, University of Wisconsin, Madison
Wyoming	Mr. C. L. Corkins, Office of State Entomologist, Powell Miss M. Greenwald, Office of State Entomologist, Powell
Puerto Rico	Mr. G. N. Wolcott, Insular Experiment Station, Rio Piedras
Hawaii	Mr. O. H. Swezey, Hawaiian Sugar Planters' Association, Honolulu
Mexico	Dr. Alfonso Dampf, Avenida Insurgentes 171, San Jacinto, Mexico, D. F.
Costa Rica	Dr. C. H. Ballou, Apartado 1368, San Jose
Brazil	Mr. E. J. Hambleton, Instituto Biologico de Defesa Agricola, Sao Paulo
Egypt	Mr. A. H. Rosenfeld, Botanical and Plant Breeding Section, Ministry of Agriculture, El Giza



5

## THE MORE IMPORTANT RECORDS FOR JANUARY AND FEBRUARY 1936

We wish, at this time, to express our thanks to our collaborators for the excellent cooperation they gave us last year in the collection of Phyllophaga adults. We hope to continue this work during the coming year and should appreciate receiving adults from all of our collaborators. We also wish to call your attention to a mimeographed publication (E-364) on the periodical cicada. In this circular we have recorded the localities where Broods X and XXII appeared in previous years. We should appreciate any data on places of appearance this year.

Despite the very severe winter that prevailed over most of the Wheat Belt, reports from Indiana, Arkansas, and Oklahoma indicate that the hessian fly suffered but little mortality. On the other hand, the chinch bug in Indiana suffered severe mortality, which ran from 49 to 98 percent in parts of the State.

The corn ear worm was prevalent during January in extreme southeastern Texas.

The alfalfa weevil was reported as prevalent in the San Francisco Bay district of California, and by the middle of February parasitization by Bathyplectes was running over 50 percent.

One of the most important sugarcane mites, Tarsonemus bancrofti Michael, has been found established on the eastern edge of the Everglades in Florida.

Reports from Virginia indicate that the rosy apple aphid will be more numerous than usual in the southern Appalachian apple-growing districts this year.

Several small infestations of California red scale continue in the Phoenix area of Arizona and an eradication campaign is under way.

The vegetable weevil was numerous enough in the Gulf region and Georgia to attract considerable attention.

The banded cucumber beetle was reported to be attacking a number of truck crops in Florida, Alabama, and California.

Reports from the South Atlantic and Gulf States indicate that the boll weevil has been less active during the late winter than for many years.

During January screw worm population was, in general, very low; however, a minor outbreak occurred in Uvalde County, Tex., where rather serious infestations were found on recently docked sheep.

CEREAL AND FORAGE - CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Indiana. W. B. Noble (January 20): Apparently most of the late fall brood succeeded in completing their growth and forming puparia. Volunteer wheat taken from the field today showed only about 10 percent still in the larval stage. These larvae were from half grown to mature and were apparently still alive. (February 17): Dissection of puparia taken from volunteer wheat in a field near La Fayette on February 8 showed practically no mortality, notwithstanding severe weather. Many of the larvae they contain are now pupating in the greenhouse.

Missouri and Kansas. E. T. Jones (January): A survey early last November indicated that a moderate though potentially important infestation in southeastern Kansas and southwestern Missouri had developed from second-brood hessian flies over an area where infestation by the first brood was comparatively light. The larvae were from half grown to full grown and later developed into second-generation puparia.

Arkansas. Dwight Isely (February 29): For many years hessian fly was not considered a problem in Arkansas because so little wheat was grown. During the past few years, however, the wheat acreage has increased considerably, owing to removal of other crops from the land. Much of this wheat has been sown early for pasture. Practically all of the early sown wheat in Washington County (in northwestern Arkansas) is infested. In some fields 50 percent of the plants are dead and the others are infested.

Oklahoma. F. A. Fenton (February 29): A few observations made last fall indicated a heavier infestation than for many years. The infestations are apparently scattered, but occur in Garfield County in the heart of the wheat belt of the State; however, we do not anticipate serious damage in the State this year.

CHINCH BUG (Blissus leucopterus Say)

Indiana. C. Benton (February 18): A mortality of 49 percent, evidently due to the severe winter, was observed in a total of 1,448 chinch bugs present in 25 samples of bunch grasses taken in Tippecanoe County on February 10 and 14. In two samples from exposed situations the mortality was 98 percent.

Oklahoma. F. A. Fenton (February 29): The past winter has been marked by longer periods of cold weather than any winter for some years. General observations indicate that it has had no serious effect on the chinch bug. Records taken by students show an average of 144 chinch bugs per square foot on the college farm at Stillwater, the range being from 20 to 267. These records were taken in the most favorable type of hibernating quarters that we could find, i. e., in a good bunch-grass vicinity

that had been in Sudan grass last summer. It is apparent that there are more chinch bugs in hibernation than there were a year ago.

### CORN

#### CORN EAR WORM (*Heliothis obsoleta* Fab.)

Texas. T. C. Barber (January): The corn ear worm was frequently found in corn in January in the vicinity of Brownsville, though it was not observed on cotton during the month. The corn was planted late in the fall for the winter crop. Larvae of all sizes are present and pupation is taking place in the insectary.

### ALFALFA

#### ALFALFA WEEVIL (*Hypera postica* Gyll.)

California. A. E. Michelbacher (February 22): Larvae and adults could be collected throughout the fall and winter in middle lowland California. They were most abundant in the San Francisco Bay area, where by January 17 as high as 28 larvae were collected to 100 sweeps of a net. On the 24th of January the count jumped to 95 and on the 30th to 132. On the 10th of February the count remained about the same, but about one-fourth of the larvae were dead. Whether this was the result of weather conditions or of a fungus has not yet been determined. In the northwestern part of the San Joaquin Valley larvae and adults were collected with ease. On the 24th of January as high as 15 larvae and 15 adults were collected to 100 sweeps of a net. This is the earliest I have taken the weevil in this area. On the 17th of January adults of the parasite *Bathypsectes curculionis* Thoms. could be collected. Parasitization of the alfalfa weevil larvae, however, was not high. In one field in the San Francisco Bay area 5 larvae out of 26 were found to be parasitized, while in another 6 out of 34 were parasitized. Adult parasites were plentiful, but on the 24th of January only 33 alfalfa weevil larvae out of 308 were parasitized, and on the 30th of January in one field 33 alfalfa weevil larvae out of 213 were parasitized; in another, 13 out of 41 were parasitized; and in a third field 25 larvae out of 63 were parasitized. On the 10th of February 116 larvae out of 192 were parasitized, while in a second field 40 out of 52 were parasitized. Up to the present time some fields have consistently shown higher parasitization than others. In all instances, however, the parasitization increased rapidly as is indicated by the figures given above. The extent of parasitization was obtained from rearing records--that is, large alfalfa weevil larvae were brought into the laboratory and the extent of parasitization was determined on the number of alfalfa weevil cocoons containing cocoons of the parasite. A surprising number of the parasite cocoons are the dark-colored, overwintering form, and I suppose months will elapse before adults will emerge from them. Overwintering cocoons obtained from alfalfa weevil larvae collected during the latter part of May 1935 were placed on a window sill having



a northern exposure. Emergence started about the 10th of January, has continued to be heavy, and is about completed.

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

California. J. C. Hamlin (February 4): Samples of larvae collected by G. G. Schweis near Sacramento were determined by A. G. Boving.

A. E. Michelbacher (February 24): The clover leaf weevil was found generally throughout the alfalfa fields.

ALFALFA LOOPER (Autographa californica Speyer)

California. A. E. Michelbacher (February 24): In checking through alfalfa fields during January and the first part of February, I found the larvae of the alfalfa semilooper quite common. Many of them were parasitized by a tachinid.

SUGARCANE

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana. B. A. Osterberger (February 24): Larvae of the sugarcane borer hibernating in dry corn stalks show an increase in mortality, but among those in the stubble of volunteer corn a few live larvae are found. The mortality from the cold is not so high as it was last season.

SUGARCANE ROOTSTOCK WEEVIL (Anacentrinus subnudus Buchanan)

Louisiana. B. A. Osterberger (February 24): Adults, larvae, and pupae were found in about every variety of sugarcane examined. Injured rootstocks ranged from 30 to 67 percent.

A MITE (Tarsonemus bancrofti Michael)

Florida. P. N. Annand (January 28): Word has recently been received of the discovery of T. bancrofti on sorghum hybrids and New Guinea canes in four locations on the experimental plats maintained by the United States Department of Agriculture at Canal Point, on the eastern edge of the Everglades. An infestation was also found in an adjoining field of commercial cane. Owing to the rather general occurrence of the mite, it is feared that its eradication may prove to be difficult.

## F R U I T I N S E C T S

APPLECODLING MOTH (Carpocapsa pomonella L.)

Georgia. C. H. Alden (February 19): The winter carry-over of hibernating larvae of the codling moth is moderate at Cornelia. Practically none have been killed by winter temperatures but some are dead from fungus.

Oregon. D. C. Mote (February 25): B. G. Thompson reports that at the last examination the larvae were coming through in good condition.

ROSY APPLE APHID (Anuraphis roseus Baker)

Virginia. W. J. Schoene (February 28): Last fall returning migrants of the rosy aphid were found in numbers on apple foliage in many sections of the State, and during the winter aphid eggs have been observed to be more numerous than usual. Accordingly, growers are showing considerable interest in the aphid spray. We expect this to be a rosy-aphid year.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia. O. I. Snapp (January 24): The San Jose scale is more abundant than usual on peach trees at Fort Valley. The percentage of living scale on unsprayed peach trees in January was lower than that of an average year, which may be due to the unusually cold winter. Of 30,600 scale counted under the binocular during the period January 14 to 24, 23,168, or 75.7 percent, were found to be alive.

C. H. Alden (February 19): Scale was very bad on peach and apple at Cornelia in the fall, but spraying and extremely severe winter weather have greatly reduced the numbers and have prevented breeding.

Alabama. J. M. Robinson (February 25): San Jose scale is moderately abundant on fruit trees at Auburn, Grand Bay, and some other places in the State.

PEACHPLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia. C. H. Alden (February 19): Plum curculio still in hibernation at Cornelia.

PEACH BORER (Aegeria exitiosa Say)

Alabama. J. M. Robinson (February): The peach tree borer was moderately abundant at Auburn, requiring treatment.

GREEN PEACH APHID (Myzus persicae Sulz.)

California. E. O. Essig (February 26): Because of the mild winter, aphids have survived in considerable numbers in the San Francisco Bay area. The green peach aphid has been abundant at Berkeley. Adults of the black peach aphid (Aphis persicae-niger Smith) have been noted on peach trees that have held their leaves all winter.

RASPBERRY

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

Utah. G. F. Knowlton (January 10): The following letter was recently received: "While pruning raspberries I noticed some of the new canes fell over. On examination, I found in various canes, but principally in the weaker ones, larvae ranging from about  $3/16$  to  $1/2$  inch long. The smaller ones were white, whereas the larger ones were dull white with dark heads. The larvae entered and worked in the canes from 1 to 8 inches above the ground."

GRAPE

GRAPE LEATHOPPER (Erythroneura comes Say)

California. S. Lockwood (February 25): The grape leafhopper was overwintering in considerable numbers in sections of the San Joaquin Valley. Reports state that the excessive rainfall of the last 2 weeks has apparently reduced the numbers markedly.

PECAN

OBSCURE SCALE (Chrysomphalus obscurus Comst.)

California. M. L. Jones (February 25): The foci of known infestations in California are limited to Pacoima, Los Angeles County, and the vicinity of Flinn Springs, San Diego County. The infestation is found only on pecan trees.

WALNUT

FROSTED SCALE (Lecanium pruinosum Coq.)

California. H. J. Ryan (February 21): Infestations on English walnut trees in the Pomona district became so severe during the winter that about 250 acres of walnut orchards were sprayed with oil in January. This scale has been well established for many years in southern California, but this is the first record of any build-up to population requiring treatment.

CITRUS

FRUIT FLIES (Anastrepha spp.)

Texas. P. A. Hoidale (January): All species of fruit flies found in the Rio Grande Valley previously were trapped in increased numbers there during January. The total for this month over December for Anastrepha ludens Loew jumped from 8 to 49; A. serpentina Wied., from 43 to 76; A. fraterculus auct., from 9 to 15; A. sp. "Y", from 7 to 30; A. pallens Coq., from 489 to 580; and Toxotrypana curvicauda Gerst., from 11 to 26. Two specimens which have been listed as probably new species were also trapped. No larval infestations were found throughout the month.

MEALYBUGS (Pseudococcus spp.)

California. H. J. Ryan (February 21): Occasional infestations of P. maritimus Ehrh., and P. citri Risso still require liberations of the ladybeetle Cryptolaemus montrouzieri Muls. Control of P. gahani Green has been maintained by the parasites Coccophagus gurneyi Compere and Tetraneura pretiosus Timb.

A SCALE INSECT (Lepidosaphes halli Green)

California. M. L. Jones (February 25): Surveys are in progress to establish the possible distribution of Hall's scale in the Chico district of Butte County. To date, all evidence indicates that it has not spread from the United States Plant Introduction Garden. Eradication of this scale during one season was attempted in the spring of 1935. The only survivors found to date were four individuals on one tree. The group containing this tree is isolated and has been given a very drastic treatment. All stone-fruit trees leaving the station, about 3,600 in number, have been treated by vacuum fumigation.

CALIFORNIA RED SCALE (Chrysomphalus aurantii Mask.)

Arizona. C. D. Lebert (February 24): Approximately 10,000 citrus trees are being fumigated in the Phoenix area. It is hoped that complete eradication of this pest will be achieved.

GREEN CITRUS APHID (Arhis spiraeicola Patch)

Florida. J. R. Watson (February 24): The first part of the winter was very dry. Since then it has been cold and wet. These conditions were very unfavorable for the development of the citrus aphid, as there was no food in the early part of the winter and it has been too cold for rapid development since. Aphids are at present about as scarce as I have ever seen them.



A FLOWER THRIPS (Frankliniella tritici californicus Moul.)

Arizona. C. D. Lebert (February 24): Thrips were observed in great numbers on citrus at Castle Hot Springs on January 9. Little foliage injury was found but the citrus fruits, upon which the thrips had congregated by the thousands, showed pronounced speckling and softening of the rinds. The thrips were also observed on nearby truck crops. This thrips has also been observed on citrus in the Phoenix district but not in abundance.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Florida. J. R. Watson (February 24): Because of weather conditions, citrus rust mites have given very little trouble this winter.

T R U C K - C R O P I N S E C T S

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

Georgia. T. L. Bissell (January 29): On November 25, 26, and 27, 1935, a survey was made in several middle-Georgia towns for the vegetable weevil. Larvae were found on turnip at Griffin, Orchard Hill, Milner, and Barnesville, but none at Experiment. Larvae were collected at 14 of 24 properties visited. No serious injury was observed. On December 12 larvae were sent to me from Clarkston, De Kalb County, on Chinese cabbage. (February 20): Vegetable weevil larvae, apparently of the second and third instars, were found in turnip crowns today near Milner.

Alabama. J. M. Robinson (February 25): The vegetable weevil has developed slowly through the winter months and some individuals are pupating.

Mississippi. C. Lyle (February 24): The vegetable weevil has been responsible for most of the insect complaints received. Reports have been received from 14 properties in the vicinity of Booneville, Kosciusko, Vicksburg, Lexington, Carthage, and Ethel.

Louisiana. B. A. Osterberger (February 29): Today larvae of the vegetable weevil were received from Iota, Acadia Parish, where they were attacking turnips.

California. S. Lockwood (February 25): The vegetable weevil was found in home gardens and small commercial plantings of vegetables in the city of Santa Barbara County, and close environs. The annual survey made December 1935 in the Santa Maria and Lompoc Valleys gave negative results.

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

Florida. J. R. Watson (February 24): Several complaints of the belted cucumber beetle on truck crops have been received. One grower in Highlands County reported the complete destruction of 20 acres of lima beans.

Alabama. J. M. Robinson (February 25): The banded bean beetles were very active on fall greens up to November 18.

California. R. E. Campbell (January 7): In several pea fields in Orange County the belted cucumber beetle was numerous, though doing little feeding.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Virginia. H. G. Walker (February 28): Twelve-spotted cucumber beetles were active and feeding on plantain on February 26 at Norfolk.

Georgia. T. L. Bissell (February 17): Beetles were found hibernating under dead leaves and grass at Experiment between January 14 and February 17.

CUTWORMS (Noctuidae)

Georgia. T. L. Bissell (February 12): Armyworms are rather plentiful, hibernating in dead grass and leaves at Experiment. Between January 17 and February 12, 26 larvae were taken from 22 plots, each 1 yard square.

Tennessee. G. M. Bentley (February 28): I have seen a number of different species of noctuids in flight but do not know the species. These moths were medium-sized and smaller individuals.

SOUTHERN GREEN STINKBUG (Nezara viridula L.)

Florida. F. S. Chamberlin (January): The southern green plant bug was unusually abundant during the fall and is now found in semihibernation in sheltered places.

Texas. F. L. Thomas (February 26): The southern green plant bug was observed near Crystal City recently.

FALSE CHINCH BUG (Nysius ericae Schill.)

Arizona. C. D. Lebert (February 24): Adult false chinch bugs were first noticed in considerable numbers on weed cover crops in several of the citrus groves in the north Phoenix area.

GARDEN CENTIPEDE (Scutigera immaculata Newp.)

California. S. Lockwood (February 25): The lowlands of the Sacramento Valley have been inundated for several days. It is believed that if the water is not pumped out too soon, the asparagus fields will be rid, to a degree at least, of the garden centipede.

A. E. Michelbacher (February 24): In checking over some infested fields in the delta area of the Sacramento and San Joaquin Rivers, I found a marked reduction of the pest in several places.

TOMATO

A CHIRONOMID (Spaniotoma sp.)

Ohio. J. N. Knull (January 15): Numerous tomato plants in a greenhouse at Lancaster were infested with chironomid larvae, probably of the genus Spaniotoma. The larvae entered the stems just above the ground level and worked up into the living tissue. The injury caused the young plants to break and wither.

ONION THRIPS (Thrips tabaci Lind.)

Virginia. H. G. Walker (February 28): The onion thrips was found to be seriously injuring young tomato and celery plants in a greenhouse at Norfolk. Apparently the thrips had been breeding on cucumber vines and when the old vines were removed and replaced with young tomato and celery plants, large numbers of the thrips transferred their attention to them and caused serious injury before their presence was detected and control measures were applied.

Texas. F. L. Thomas (February 26): Onion thrips are beginning to increase in numbers in the Winter Garden district. The infestation is much lighter than in 1935 at this time, averaging less than 5 per onion plant on February 24.

BEANS

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Virginia. H. G. Walker (February 28): Large numbers of bean leaf beetles were found hibernating under trash in an old bean field at Norfolk on February 27.

Georgia. T. L. Bissell (February 17): Beetles were found hibernating beneath dead leaves and grass at Experiment between January 14 and February 17.

PEAS

PEA APHID (Illinoia pisi Kalt.)

California. A. E. Michelbacher (February 24): The pea aphid is quite common on alfalfa.

Georgia. T. L. Bissell (February 20): The pea aphid is scarce on Austrian peas at Experiment. This insect usually becomes abundant the first or middle of May.

California. R. E. Campbell (January 7): In several pea fields in Orange County the pea aphid has gradually been increasing, until by the first of the year it was numerous enough to cause injury.

CABBAGE

IMPORTED CABBAGE WORM (Ascia rapae L.)

Florida. F. S. Chamberlin (January): The cabbage worm is moderately abundant on collards and cabbage.

Mississippi. C. Lyle (February 24): The imported cabbage worm was observed on turnips at State College during November and December, but was less abundant than the cabbage looper.

Louisiana. B. A. Osterberger (February 24): During the entire winter adults of the cabbage butterfly have been noticed in flight on warm days. Eggs and young stages could be found at any time during the warmer part of the winter.

CABBAGE LOOPER ( Autographa brassicae Riley)

Florida. J. R. Watson (February 24): The cabbage looper has been less troublesome than usual, owing to the cold rainy weather.

Mississippi. C. Lyle (February 24): The cabbage looper was fairly abundant on turnips at State College in November and December.

Texas. F. L. Thomas (February 26): The cabbage loopers are practically absent from the lower Rio Grande Valley and from the Winter Garden district.

DIAMOND-BACK MOTH (Plutella maculipennis Curt.)

Florida. J. R. Watson (February 24): The diamond-back moth has been less troublesome than usual, owing to the cold rainy weather.

Texas. F. L. Thomas (February 26): The diamond-back cabbage worm is practically absent from the lower Rio Grande Valley and from the Winter Garden region.



CABBAGE APHID (Brevicoryne brassicae L.)

Georgia. T. L. Bissell (February 20): Collards at Experiment are lightly infested with aphids.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Georgia. T. L. Bissell (February 17): M. histrionica was found hibernating under dead leaves and grass at Experiment between January 14 and February 17.

Mississippi. D. W. Grimes (February 24): This pest was observed on turnips at Kosciusko on February 13.

Texas. F. L. Thomas (February 26): The harlequin bug is abundant on old plantings of turnips in the Winter Garden district.

TURNIP

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Georgia. T. L. Bissell (February): The turnip aphid did considerable damage to greens at Experiment in November.

Louisiana. B. A. Osterberger (February 24): The turnip aphid is moderately abundant on turnips. The convergent ladybeetle (Hippodamia convergens Guer.) is present.

Texas. F. L. Thomas (February 26): The turnip aphid is abundant on old plantings of turnips in the Winter Garden district.

CELERY

SOUTHERN ARMYWORM (Prodenia eridania Cram.)

Florida. J. R. Watson (February 24): A heavy infestation of the semi-tropical armyworm occurred on celery in the Sarasota and Sanford districts. The insect worked like a cutworm, gouging out and ruining the stalks at the base. The infestation has largely subsided, although a few individuals are still present.

SWEETPOTATO

SWEETPOTATO WEEVIL (Cylas formicarius Fab.)

Florida. F. S. Chamberlin (January): During the year 1934 an outbreak of the sweetpotato weevil occurred in the northern part of Gadsden County. Eradication methods were employed for a short time. Reports now indicate that the insect is becoming well established within a small area, and one field of potatoes has been reported as a total loss because of it. This pest represents a potential menace in this section, where sweetpotatoes are among the important crops.

## HOPS

### HOP APHID (Phorodon humuli Schr.)

Oregon. D. C. Mote (February 25): N. Larson reports live hop aphids present after the freeze, which occurred on October 30 and continued into the first few days of November with a minimum temperature at Corvallis of 18° F.

## STRAWBERRY

### STRAWBERRY ROOT APHID (Aphis forbesi Weed)

Virginia. H. G. Walker (February 28): Eggs of the strawberry root louse, which are not nearly so abundant at Norfolk this year as last, were beginning to hatch on February 27.

### COMMON RED SPIDER (Tetranychus telarius L.)

Virginia. H. G. Walker (February 28): Red spiders are rather abundant in many strawberry fields on the Eastern Shore of Virginia and in the Norfolk trucking area.

Oregon. D. C. Mote (February 25): I observed the common red spider mite alive after the freeze of October 30.

## PEPPER

### PEPPER WEEVIL (Anthonomus eugenii Cano)

Florida. J. R. Watson (February 24): The pepper weevil, which was found in Manatee County last year, has not been seen since August. Complete destruction of all the pepper fields during the summer is undoubtedly responsible for this scarcity and possible elimination.

## C O T T O N   I N S E C T S

### BOLL WEEVIL (Anthonomus grandis Boh.)

South Carolina. F. F. Bondy (January): No activity during January in the weevil hibernation cages at Florence, the first time in years that no weevils were seen in the cages in this month.

Alabama. J. M. Robinson (February 25): Boll weevils were moderately abundant in the fields. They were forced to go into hibernation without food after the middle of November.

Louisiana. R. C. Gaines (January): A few weevils were active in the hibernation cages at Tallulah until January 17, but there was no activity after that date. No weevils were taken on the flight screens at Tallulah during the month. This is the first time during the 5 years the screens have been in operation that no weevils were caught in January.

Texas. R. W. Moreland (January): Active weevils were observed in most of the hibernation cages at College Station on the warm days in January, the largest number being seen on January 17, when the maximum temperature was 79° F.

K. P. Ewing and R. L. McGarr (January): At Port Lavaca weevils were breeding in fields of green cotton until the freezes on January 19 and 20. After that only one adult weevil was observed in the field.

T. C. Barber (January): Boll weevil larvae and adults abundant at Brownsville.

INSECTS AFFECTING GREENHOUSE  
AND ORNAMENTAL PLANTS

GROUND MEALYBUG (Rhizoecus terrestris News.)

California. E. O. Essig (February 26): The ground mealybug has been taken on the roots of lawn grasses and many kinds of annual and perennial ornamental plants in the San Francisco Bay area during the fall and winter. It does considerable damage to some plants and is difficult to control.

BLACK SCALE (Saissetia oleae Bern.)

Mississippi. C. Lyle (February 24): Specimens of this scale on poinsettias were received from Sanatorium on January 8.

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Alabama. J. M. Robinson (February 25): Euonymus scale was generally active on ornamental japonicas, particularly at Prattsville, Canoe, and Montgomery during December.

DEODAR WEEVIL (Pissodes deodarae Hopk.)

Alabama. J. M. Robinson (February 25): This beetle was attacking ornamental cedars at Uriah during October.

AN APHID (Forda olivacea Rohw.)

California. E. O. Essig (February 26): This aphid has been abundant on the roots of Bromus carinatus in the vicinity of Berkeley this winter, but only apterous viviparous females are in evidence.



COMMON RED SPIDER (Tetranychus telarius L.)

Louisiana. B. A. Osterberger (February 24): The red spider is moderately abundant on azalea plants and evergreen shrubs.

Mississippi. C. Lyle (February 24): An infestation of red spiders on cedar was reported from Meridian on February 13.

AUCUBA

AN APHID (Macrosiphum aucubae Bartholomew)

California. E. O. Essig (February 26): Because of the mild winter, aphids have survived in considerable numbers in the San Francisco Bay area. The aucuba aphid has been abundant at Berkeley.

FERN

FERN SCALE (Hemichionaspis aspidistrae Sign.)

Alabama. J. M. Robinson (February 25): The fern scale was reported damaging the fronds of ferns at Foley early in January.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips gladioli M. & S.)

Florida. J. R. Watson (February 24): Gladiolus thrips have been active all winter but infestations are not heavy.

RHODODENDRON

RHODODENDRON WHITEFLY (Dialeurodes chittendeni Laing)

Tennessee. G. M. Bentley (February 28): In the latter part of December we made a trip to Johnson City, Washington County, and looked over sections of Carter County, examining rhododendrons. We found a light infestation of D. chittendeni passing the winter on the underside of rhododendron leaves.

SPIREA

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Mississippi. C. Lyle (February 24): An infestation of cottony-cushion scale on spirea was reported from Columbia on January 4. Ladybird beetles were promptly colonized on the property.

INSECTS ATTACKING MAN AND  
DOMESTIC ANIMALS

MAN

ANTS (Formicidae)

District of Columbia. R. A. St. George (February 27): Several species of household and lawn ants have been swarming in the basements of buildings in Washington. Specimens of Lasius sp. were received during the week of February 24 among forms mistaken for termites.

Virginia. C. R. Willey (February 27): A species of ant has been swarming in houses in and around Richmond for the past several weeks.

Mississippi. C. Lyle (February 24): Numerous complaints of Solenopsis xyloni McCook were received during the winter. A report from Vicksburg on February 14 stated that the ants had ruined articles of clothing, especially woolen blankets.

ARGENTINE ANT (Iridomyrmex humilis Mayr)

Alabama. J. M. Robinson (February 25): The Argentine ant continues to be a pest at many points over the State.

Mississippi. C. Lyle (February 24): Numerous complaints of the Argentine ant were received during the winter from towns where control campaigns were not conducted last year. About February 1 a correspondent in Hattiesburg reported that they were "making life almost unbearable."

Missouri. J. C. Dawson (December 11): Ants determined as the Argentine ant were collected on December 11, 1935, at University City, Saint Louis County.

Texas. R. Melvin (February): One infestation of the Argentine ant reported at Dallas.

HOUSE CRICKET (Gryllus domesticus L.)

Alabama. J. M. Robinson (February 25): Crickets have been reported doing damage to household furnishings at Dothan during February.

BOXELDER BUG (Leptocoris trivittatus Say)

Utah. G. F. Knowlton (February 24): Large numbers of boxelder bugs are emerging from hibernation and are sunning themselves upon south walls of buildings on warm afternoons at Salt Lake and Logan. This pest has caused some annoyance indoors during the past few weeks.

California. R. E. Campbell (January 23): After several warm, dry days, adults are active and flying about at Alhambra.

TROPICAL RAT MITE (Liponyssus bacoti Hirst.)

California. D. B. Mackie (February 25): This blood-sucking mite was submitted to the Entomological Service of the Department of Agriculture in Sacramento on January 16 with the information that it is causing considerable trouble in an apartment house. Typical dermatitis was present on two members of the custodian's family. Considerable trouble also is experienced from rats. This is a second record for Sacramento. The previous one was made in 1934. The only other State record is one from San Diego in 1930.

CATTLE

SCREW WORMS (Cochliomyia spp.)

Florida. F. C. Bishopp (February 27): The number of screw worm infestations in Florida from Dixie, Gilchrist, Alachua, Putnam, and Flagler Counties southward, was decidedly lower during the week ending February 15 than for any other weekly period of the winter.

F. S. Chamberlin (January): The screw worm is apparently causing no injury to livestock in Gadsden County.

Alabama. J. M. Robinson (February 25): The screw worm was rather scarce over the State until October, when it appeared in a few scattered counties in rather large numbers. It was found as far north as Florence, Lauderdale County.

Texas. A. W. Lindquist (January): A minor outbreak of C. americana C. and P. occurred in Uvalde County in January. The cause of most of the trouble was docking sheep, although other types of wounds also became infested. The weather apparently was ideal for screw worm attack, being characterized by hot days above average and cool nights below average. Most of the ranchmen reported more or less screw worm trouble. One man had 26 cases in 100 docked sheep. Five collections from these showed C. americana, and probably all cases were of this species. A ranchman near Rio Frio reported that of 41 docked sheep, 25 were lost because of screw worm attack. Some of the cases observed were very bad, harboring from 1,000 to 2,000 C. americana larvae and many eggs. At Sonora and Menard, about 150 miles north of Uvalde County and at a considerably higher elevation, no screw worm cases were observed in January.

. HOUSEHOLD AND STORED-PRODUCTS INSECTS

. TERMITES (Reticulitermes spp.)

Virginia. G. R. Willey (February 27): Termites have been swarming in houses in and around Richmond for the past several weeks.

District of Columbia. R. A. St. George (February 27): During the week of February 24 many requests have been received for information concerning the control of the subterranean termite, R. flavipes Kol., adults of which have been swarming in numbers in households in Washington, D. C., and vicinity.

Michigan. E. I. McDaniel (March 4): We have received our first report of emergence of termites for the year. It came from Muskegon with a statement that a basement was filled with the wings of termites on March 1 and that this is the second season they have made their appearance.

Georgia. T. L. Bissell (February 21): Termites have just begun to be noticed in dwellings. On February 19 I had a call from Griffin, and today I received an inquiry from Columbus.

Alabama. J. M. Robinson (February 25): Termites continue to worry property owners all over the State. They were reported swarming as late as November 5 in Mobile County.

Mississippi. C. Lyle (February 24): Numerous complaints of injury by R. flavipes were received during the winter.

Louisiana. B. A. Osterberger (February 24): A few termites have been noticed in flight from a steam-heated building in Baton Rouge.

Oklahoma and Texas. J. A. Beal (January): R. tibialis Bks. has done a great deal of damage during the past summer to nurseries in Oklahoma and Texas. This damage was peculiar in that it was not associated with buried wood or seedbed frames, but occurred on the roots of seedling hardwood trees, in cultivated rows, often where the soil appeared to be almost free from rotting vegetation. Injury has been most severe to green ash, mulberry, hackberry, and honeylocust seedlings, although almost no species showed immunity. In some nurseries it is estimated that losses during the growing season ran as high as 25 percent.

Utah. G. F. Knowlton (February 17): Termites were found infesting timbers in a basement in Salt Lake City.



A DERMESTID (Trogoderma sp.)

Kansas. R. T. Cotton (January): Although dermestid beetles have been generally considered to be chiefly feeders on animal products, it has been found that Trogoderma sp., probably T. versicolor Creutz., is one of the worst pests of stored seeds at Manhattan. This species was also found in a local tire-repair shop, where it was breeding in large numbers in the compound used for vulcanizing tires.

PEA WEEVIL (Bruchus pisorum L.)

Oregon. D. C. Mote (February 25): B. G. Thompson reports that on January 27 he found considerable numbers of pea weevils in hibernating quarters near Athena, in Umatilla County. Of those collected and brought into the laboratory, 94.9 percent were alive.

A POWDER-POST BEETLE (Lyctus planicollis Lec.)

Alabama. J. M. Robinson (February 25): In December the powder-post beetle was destroying hickory furniture in Birmingham.

Mississippi. C. Lyle (February 24): Specimens of this insect were taken from a hardwood floor in Yazoo City on January 3. The floor had been put down only a few months before.

NOTES FROM EGYPT, DECEMBER 23, 1935,

by

A. H. Rosenfeld

A recent survey has revealed that Pyrausta nubilalis Hbn. is generally distributed over Lower Egypt, extending as far south as Giza Province (near Cairo). Investigations lead to the conclusion that four generations occur annually in Egypt. Examination of individual infested cornstalks at Damietta and Alexandria revealed from 10 to 12 live larvae per stalk. In a number of cases Sesamia sp. and Chilo sp. were found feeding in the same internode with the corn borer and at times their galleries were joined. In Alexandria complete infestations may be found and 30-percent infestation is common.

The degree of infestation by Polychrosis botrana Schiff. in the vineyards around Amria (Lower Egypt) last season averaged about 12 percent, whereas the maximum damage reached 30 percent.

In a recent survey the long-winged form of mole cricket (Gryllotalpa gryllotalpa L.) was noted everywhere in small numbers, but the short-winged form (G. gryllotalpa cophta Haan) seems to be by far the most common and widely distributed type, especially in Lower Egypt (Alexandria, Port Said, Suez, and Ismailia). G. africana Bdv. was seen more particularly in the Fayum (Middle Egypt) and in some parts of Lower Egypt, such as Dessuk, Fareskur, and Mit Gamr.

NOTES FROM PUERTO RICO

F. M. Vandenberg, of the Mayaguez, P. R., laboratory, reports that in the investigations of the insects affecting corn recently undertaken in Puerto Rico, the work of a dipterous maggot was observed in ears of green corn. This maggot has been identified as the young of a fly, Euxesta stigmatias Loew. A closely allied species in this country is well known as a scavenger. The Puerto Rican species, however, has been reared on fresh green corn from egg to adult.

H. K. Plank sent in specimens of Cryptotermes cavifrons Bks. and C. brevis Walk., which were taken on January 20 as they were flying around lamps in a house at Mayaguez, P. R. (Det. by T. E. Snyder.)